



Introduction

This Guidance is a reference to assist you in completing the Sudden Death in the Young (SDY) Autopsy Summary. This summary sheet of autopsy results should be completed following your investigation of a sudden and unexpected death in a child or youth under age 20. It includes instructions for specific components of the autopsy.

The SDY Autopsy Guidance was developed as part of the SDY Case Registry, an initiative of the National Institutes of Health (NIH) and the US Centers for Disease Control and Prevention (CDC). This summary, the guidance and instructions were developed by the SDY Autopsy Protocol Committee composed of medical examiners with experience in pediatric, cardiac and/or neuro pathology; physician coroners, death investigators, and other medical professionals with experience in cardiology, neurology, emergency medicine, public health and genetics.

Your jurisdiction is participating in the Sudden Death in the Young Case Registry with funding from the NIH and CDC. The autopsy findings will be summarized with other case review information and biospecimen data (upon family consent) in the SDY Case Registry. This Registry of de-identified data will be used to better understand the etiologies and risk factors for sudden death in the young so that improved prevention strategies may be developed.

Additional instructions and information are provided throughout this document in italics and footnotes.

SDY Definitions and Inclusion/Exclusion Criteria for the SDY Case Registry

“Sudden” implies death within 24 hours of the first symptom, or those resuscitated from cardiac arrest and dying during the same hospital admission.

“Unexpected” refers to a death in someone who dies from an accidental injury or someone who was believed to have been in good health, or had a stable chronic condition or had an illness but death was not expected. Examples could include hypertrophic or dilated cardiomyopathy, congenital heart disease, epilepsy, asthma and pneumonia.

Inclusion and Exclusion Criteria

This autopsy results summary sheet is a key component of the SDY Case Registry and should be used for all cases that meet all of the following inclusion criteria and none of the following exclusion criteria:

Inclusion Criteria

- | | | |
|---|---------------------------------------|--------------------------------------|
| Is the child under 20 years old? | <input type="checkbox"/> Yes, Include | <input type="checkbox"/> No, Exclude |
| Was the death sudden and unexpected and/or unwitnessed? | <input type="checkbox"/> Yes, Include | <input type="checkbox"/> No, Exclude |

Exclusion Criteria

- | | | |
|--|---------------------------------------|--------------------------------------|
| Was the death caused by an accident in which the external cause was <u>the obvious and only</u> reason* for the death? | <input type="checkbox"/> Yes, Exclude | <input type="checkbox"/> No, Include |
|--|---------------------------------------|--------------------------------------|

*Exception: All infants under 1 year of age whose death was caused by suffocation ☐ Include

- | | | |
|------------------------------------|---------------------------------------|--------------------------------------|
| Was the death an obvious homicide? | <input type="checkbox"/> Yes, Exclude | <input type="checkbox"/> No, Include |
| Was the death an obvious suicide? | <input type="checkbox"/> Yes, Exclude | <input type="checkbox"/> No, Include |

- | | | |
|---|---------------------------------------|--------------------------------------|
| Was the death caused by an accidental or intentional overdose of drugs even if this caused cardiac or respiratory arrest? | <input type="checkbox"/> Yes, Exclude | <input type="checkbox"/> No, Include |
|---|---------------------------------------|--------------------------------------|

- | | | |
|---|---------------------------------------|--------------------------------------|
| Was the death caused by a terminal illness in which the death was reasonably expected to occur within 6 months? | <input type="checkbox"/> Yes, Exclude | <input type="checkbox"/> No, Include |
|---|---------------------------------------|--------------------------------------|

SUDDEN DEATH IN THE YOUNG AUTOPSY GUIDANCE

General

Sex: ☐ Male ☐ Female

Body weight: _____ kg Body length: _____ cm

Head circumference: _____ cm

External Exam: If abnormalities suggest trauma, disease/syndrome, or medical intervention, please describe:

Photography (external): ☐ Yes ☐ No

Imaging

(Circle all that were performed and describe the location)

X-Ray, single:

X-Ray, multiple views:

CT scan:

MRI:

Describe any abnormalities found on imaging:

Detailed Review of Specified Organs

Thorax/Lungs

Thorax/Lungs Imaging:

Radiographs of chest ☐ Prior to death (hospital, emergency room, other) ☐ Postmortem

- *If there is a question about the possibility of extra lobar or intra-lobar sequestration, or congenital pulmonary adenomatoid malformation (CPAM; old name CCAM), remove the heart, lungs, central diaphragm, inferior vena cava, and descending aorta as a block, and send for pediatric pathology consultation.*

Thorax/Lungs – External Gross Examination

Chest

Contour ☐ Normal ☐ Abnormal

If abnormal: ☐ Increased anteroposterior diameter ☐ Asymmetry

Costal margin flaring ☐ Other: _____

Injuries ☐ Absent ☐ Present: _____

Axillary lymphadenopathy ☐ Absent ☐ Present

Other: _____

Nasal choanae (infants)¹ ☐ Patent ☐ Obstructed

¹Testing to see if the nasal choanae are patent may be performed by sounding each nostril with a flexible probe. This can be performed with the nasopharyngeal swab for viral culture.

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Thorax/Lungs – Internal Gross Examination

- *Photography: (optional)* ☐ *In situ* ☐ *On cutting board* • *Testing: sampling for viral and bacterial cultures (as indicated)*

Tracheal deviation ☐ Absent ☐ Present: ☐ Left ☐ Right

Lungs

Pneumothorax ☐ Absent ☐ Present: ☐ Left ☐ Right ☐ Bilateral

If present, diagnosed by: ☐ X-ray ☐ Other means: _____

Hypoinflation² ☐ Absent ☐ Present: ☐ Left ☐ Right ☐ Bilateral

Lung(s) sunken towards the back ☐ Absent ☐ Present: ☐ Left ☐ Right ☐ Bilateral

Hyperinflation ☐ Lungs do not approach midline ☐ Approach midline ☐ Meet in midline

Color ☐ Pink ☐ Dark red ☐ Alternating pink and purple ☐ Fibrinous/purulent exudate

☐ Dark red in all lobes, posterior only³ ☐ Other: _____

Pleural effusion ☐ Absent ☐ Present: ☐ Left ☐ Right ☐ Bilateral

If present, appearance: ☐ Clear ☐ Bloody ☐ Straw ☐ Purulent ☐ Other: _____

Amount: _____ ml

Hemidiaphragm elevation: ☐ Absent ☐ Present: ☐ Left ☐ Right ☐ Bilateral

Thorax/Lungs – Gross Dissection

- *Take heart and lungs out as a block after inspecting aorta for vascular ring around trachea, and inspecting pulmonary arteries and veins (see heart section).*

- *The trachea / upper respiratory tract should be removed as a block with the lungs.*

Vascular ring (aorta around trachea) ☐ Absent ☐ Present

Lungs

Blood on the pleural surface (adherent hemothorax) ☐ Absent ☐ Present: ☐ Acute ☐ Chronic

Blood beneath the pleura ☐ Absent ☐ Present: ☐ Petechiae ☐ Confluent/Large hemorrhages

Necrotic exudate on the pleural surface ☐ Absent ☐ Present

Prominent/discolored/dilated lymphatics visible through the pleura ☐ Absent ☐ Present

Cobblestoning⁴ ☐ Absent ☐ Present

Rib markings on the pleura ☐ Absent ☐ Present

Other: _____

- *Perform the initial examination of the heart/lung block. If a cardiovascular pathology or pediatric pathology consultation is requested, send the heart/lung block to the consultant. If consultation is not requested, separate the lungs from the heart following the initial examination.*

Lung weights within normal range for age ☐ Yes ☐ No: ☐ Increased ☐ Decreased

Right lung approximately 1/3 heavier than the left lung ☐ Yes ☐ No: _____

Resuscitation-related changes ☐ Absent ☐ Present: _____

Pulmonary edema, NOS ☐ Absent ☐ Present: _____

Neurogenic pulmonary edema⁵ ☐ Absent ☐ Present: _____

Pulmonary infection ☐ Absent ☐ Present: _____

Pulmonary hemorrhage ☐ Absent ☐ Present: _____

If present: ☐ Diffuse ☐ Focal, location: _____ ☐ Aspiration pattern (follows bronchi)

Pulmonary hypertension⁶ ☐ Absent ☐ Present

Other: _____

²Do the lungs approach each other or meet in the midline?

⁵Consider SUDEP

³Probable postmortem change

⁶Muscle layers in subpleural arterioles

⁴Areas of pink hyperinflation and purple hypoinflation

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Thorax/Lungs – Gross Dissection (continued)

Abnormalities/disease processes visible at the hilum of either lung:

Pulmonary artery thromboemboli⁷ ☐ Absent ☐ Present, location: _____
Bronchial mucus/purulence ☐ Absent ☐ Present: _____
Bronchial aspirated food, foreign object ☐ Absent ☐ Present: _____
Other: _____

Is the right lung anatomically right-sided, and is the left lung left-sided?⁸ ☐ Yes ☐ No

If no, partially divided lobes: ☐ Absent ☐ Present: _____

Relationship of mainstem bronchus to mainstem pulmonary artery:⁹

- ☐ Normal: left hyparterial bronchus and right eparterial bronchus
- ☐ Left side is normal but right side is not (two left lungs)¹⁰
- ☐ Right side is normal but left side is not (two right lungs)¹¹
- ☐ Neither side is normal¹²

• *Section through all lobes, central and peripheral, including mainstem bronchi.*

Hilar lymph nodes ☐ Normal ☐ Abnormal
If abnormal: ☐ Enlarged ☐ Anthracotic ☐ Granulomatous disease ☐ Hemorrhagic
 ☐ Gross infection ☐ Tumor deposits ☐ Other: _____
Aspiration ☐ Absent ☐ Present: _____
Atelectasis ☐ Absent ☐ Present: _____
Hyperinflation with/without mucus plugs¹³ ☐ Absent ☐ Present: _____
Rib markings on pleura ☐ Absent ☐ Present: _____
Cobblestoning ☐ Absent ☐ Present: _____
Copious clear fluid ☐ Absent ☐ Present: _____
Copious blood-tinged fluid (from bronchi and/or parenchyma on sectioning) ☐ Absent ☐ Present
Hemorrhage ☐ Absent ☐ Present:
If present: ☐ Diffuse ☐ Focal, location: _____ ☐ Aspiration pattern (follows bronchi)
Pneumonia/consolidation, exudate in bronchi, abscesses, or other signs of infection ☐ Absent ☐ Present
Cavitation ☐ Absent ☐ Present: _____
Granulomatous process¹⁴ ☐ Absent ☐ Present: _____
Infarction/thromboemboli¹⁵ ☐ Absent ☐ Present: _____
Tumor or suspected benign
or neoplastic process ☐ Absent ☐ Present: _____
Congenital anomaly ☐ Absent ☐ Present: _____
Other: _____

⁷If there is any question whether blood clots in the mainstem pulmonary artery branches are antemortem thromboemboli or postmortem clot, histology is definitive.

⁸Three lobes on the right and two lobes on the left

⁹Does the main bronchus enter the hilum above, or approximately level with, the mainstem pulmonary artery branch on the right side (normal right eparterial bronchus), and below the mainstem pulmonary artery branch on the left side (normal left hyparterial bronchus)? If abnormal, consider pediatric pathology consultation.

¹⁰Look for polysplenia.

¹¹Look for asplenia.

¹²Look for Kartagener syndrome.

¹³Consider asthma.

¹⁴Consider infection or sarcoidosis

¹⁵Propagation of thromboemboli causes red-purple “sausages” to exude from cross-sectioned pulmonary artery branches.

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Heart – Gross Dissection

- Weigh the heart
- Make note of epicardial adhesions, exudate, or discoloration
 - Make note of amount and distribution of epicardial fat
- Section the epicardial coronary arteries at 3-5 mm intervals, avoiding cutting into great arteries and cardiac chambers
 - Note arterial dominance (right/left/shared) and locations and degrees of obstructions
- Make transverse (short axis) slices through the ventricles beginning 1 cm above the apex and at 1 cm intervals; do not section above the level of the tips of the left ventricular papillary muscles
 - Note all gross lesions in the myocardial sections including scars, discolorations, and softening
 - Lesions should be described by the usual descriptors (e.g., size, color, firmness) as well as:
- Vertical location (e.g., basal, midventricular, apical)
- Lateral location (e.g., anteroseptal, inferolateral)
- Distribution (e.g., subendocardial, transmural, subepicardial)
 - Take measurements of left ventricular thickness, right ventricular thickness, and septal thickness in the uppermost (most basal) slice
- When taking measurements, include only the compact myocardium; do not include trabecular muscle or papillary muscles
 - Examine the right ventricular wall for fat infiltration
 - It is recommended that the myocardial slices be photographed, especially if there are grossly visible lesions
- Open the heart in the direction of blood flow:
 - Open the right atrium from the inferior vena cava orifice to the tip of the atrial appendage
- Do not open through the superior vena cava orifice; doing so may cut through the SA node, hampering dissection of the conduction system if that is desired later
 - Open from the right atrium to the right ventricle along the posterior or lateral wall
 - Open the right ventricular outflow tract anteriorly
 - Open the left atrium by connecting all of the pulmonary veins and cutting to the tip of the atrial appendage
 - Open from the left atrium to the left ventricle along the lateral wall
 - Open the left ventricular outflow tract anteriorly
- Remove postmortem clot from all chambers
 - If large amount of postmortem clot is present, consider re-weighing heart after the clot is removed
- Describe degree of dilation of chambers, if any, and document presence/absence of mural thrombi
- Document presence/absence of patent foramen ovale, atrial septal defect, or ventricular septal defect (describe size and location if present)
- Examine the valves, noting number of leaflets/cusps of each and presence of any abnormalities (e.g., myxoid change, calcification, vegetations)
- Examine the coronary ostia
 - If ectopic origin is present, note acuity of the origin (e.g., sharp angle of origin), course of the proximal segment of the artery (e.g., within aortic adventitia), and presence/absence of an occlusive ostial flap
- If any of the above findings are present, it is recommended that they be photographed in addition to being described in the autopsy guidance

Heart – Gross Examination

Heart weight_____ g	<input type="checkbox"/> Unfixed	<input type="checkbox"/> Fixed	
Thoracic position	<input type="checkbox"/> Left (normal)	<input type="checkbox"/> Right	<input type="checkbox"/> Midline <input type="checkbox"/> Ectopic: _____
Apex	<input type="checkbox"/> Leftward (normal)	<input type="checkbox"/> Rightward	<input type="checkbox"/> Other: _____
Spleen	<input type="checkbox"/> Single	<input type="checkbox"/> Accessory	<input type="checkbox"/> Polysplenia <input type="checkbox"/> Asplenia
Liver	<input type="checkbox"/> Right (normal)	<input type="checkbox"/> Left	<input type="checkbox"/> Midline/ambiguous
Pericardial effusion	<input type="checkbox"/> Absent	<input type="checkbox"/> Present	If present: Amount: _____ ml
– Appearance	<input type="checkbox"/> Clear	<input type="checkbox"/> Straw	<input type="checkbox"/> Purulent <input type="checkbox"/> Other: _____
Hemopericardium	<input type="checkbox"/> Absent	<input type="checkbox"/> Present	
Vascular Ring	<input type="checkbox"/> Absent	<input type="checkbox"/> Present	
Epicardium – Exudate	<input type="checkbox"/> Absent	<input type="checkbox"/> Present: _____	
– Adhesions	<input type="checkbox"/> Absent	<input type="checkbox"/> Present: _____	
– Fat	<input type="checkbox"/> Present, normal amount	<input type="checkbox"/> Increased	<input type="checkbox"/> Decreased
Right atrium – Morphology	<input type="checkbox"/> Right ¹⁷ (normal)	<input type="checkbox"/> Left	<input type="checkbox"/> Ambiguous/other: _____
– Venoatrial connections (SVC/IVC)	<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal: _____	
– Coronary sinus OS	<input type="checkbox"/> Patent	<input type="checkbox"/> Stenotic	<input type="checkbox"/> Atretic
– Dilation	<input type="checkbox"/> Absent	<input type="checkbox"/> Present: <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	
– Cavitory thrombus ¹⁸	<input type="checkbox"/> Absent	<input type="checkbox"/> Present: _____	

¹⁷Right atrial morphology includes presence of terminal crest, smooth endocardial surface posterior to terminal crest, pectinate muscles anterior to terminal crest and in atrial appendage.

¹⁸Antemortem thrombus; excludes perimortem/postmortem clot.

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Heart – Gross Examination (continued)

Left atrium

- Morphology ☐ Left (normal)¹⁹ ☐ Right ☐ Ambiguous/other: _____
- Coronary sinus OS ☐ Patent ☐ Stenotic ☐ Atretic
- Dilation ☐ Absent ☐ Present: ☐ Mild ☐ Moderate ☐ Severe
- Cavitory thrombus ☐ Absent ☐ Present: _____

Atrial septum ☐ Intact ☐ Probe-patent foramen ovale ☐ Atrial septal defect:²⁰ _____

Atrioventricular valves ☐ Two valves (right and left) ☐ Common valve (atrioventricular canal²¹)

Right atrioventricular valve

- Morphology ☐ Tricuspid (normal) ☐ Prosthetic: (type) _____ ☐ Other: _____
- Abnormalities ☐ Absent ☐ Present: If present, circle/describe all that apply:
 - Vegetations _____ – Leaflet thickening _____
 - Prolapse/ballooning _____ – Leaflet perforation _____
 - Commissural fusion _____ – Apical displacement of septal leaflet (Ebstein's anomaly) _____
 - Other: _____

Left atrioventricular valve

- Morphology ☐ Mitral (bicuspid, normal) ☐ Prosthetic: (type) _____ ☐ Other: _____
- Abnormalities ☐ Absent ☐ Present: If present, circle/describe all that apply:
 - Vegetations _____ – Leaflet thickening _____
 - Prolapse/ballooning _____ – Leaflet perforation _____
 - Commissural fusion _____ – Chordal thickening _____
 - Chordal stretching/rupture _____ – Other: _____

Right ventricle

- Morphology ☐ Right²² (normal) ☐ Left ☐ Ambiguous/other: _____
- Wall thickness²³ ☐ Anterior: _____ cm ☐ Posterior: _____ cm
- Fat infiltration²⁴ ☐ Absent ☐ Present ☐ If present, which wall: ☐ Anterior ☐ Posterior
 - ☐ Maximum % thickness of wall involved: _____
- Right ventricular thinning²⁴ ☐ Absent ☐ Present, location: _____
- Dilation ☐ Absent ☐ Present: ☐ Mild ☐ Moderate ☐ Severe
- Cavitory thrombus ☐ Absent ☐ Present: _____
- Endocardium ☐ Thin, translucent (normal) ☐ Abnormal: _____

Left ventricle

- Morphology ☐ Left²⁵ (normal) ☐ Right ☐ Ambiguous/Other
- Wall thickness²³ ☐ Anterior: _____ cm ☐ Lateral: _____ cm ☐ Inferior/posterior: _____ cm
- Dilation ☐ Absent ☐ Present: ☐ Mild ☐ Moderate ☐ Severe
 - If present, chamber diameter (at same level as wall thicknesses): _____ cm
- Cavitory thrombus ☐ Absent ☐ Present: _____
- Endocardium ☐ Thin, translucent (normal) ☐ Abnormal: _____
- Myocardial infarction (acute/recent) ☐ Absent ☐ Present: _____
- Myocardial scar²⁶ ☐ Absent ☐ Present: _____
- Myocardial discoloration ☐ Absent ☐ Present: _____

¹⁹Left atrial morphology includes absence of terminal crest and smooth endocardial surface throughout atrium except for pectinate muscles in atrial appendage.

²⁰Description should include location, size, and any intervention.

²¹Describe morphology and pathology under “Left atrioventricular valve” section.

²²Right ventricular morphology includes coarse endomyocardial trabeculations and presence of a moderator band.

²³Measurements should be taken at the level of the tips of the ventricular papillary muscles and should include only the compact myocardium (not epicardial fat or papillary/trabecular muscle).

²⁴Concerning for arrhythmogenic right ventricular cardiomyopathy

²⁵Left ventricular morphology includes fine endomyocardial trabeculations and absence of a moderator band.

²⁶Includes remote myocardial infarctions

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Heart – Gross Examination (continued)

Ventricular septum

– Septal thickness²⁷ _____ cm ☐ Intact ☐ Ventricular septal defect²⁸ _____

Semilunar valves ☐ Two valves ☐ Single valve²⁹ (truncus arteriosus, pulmonary or aortic atresia)

– If two valves: ☐ Aorta posterior and rightward of the pulmonary valve (normal)
☐ D-malposed³⁰ ☐ Other arrangement: _____

Right semilunar valve

– Number of cusps ☐ 3 (normal) ☐ Other: _____ ☐ Prosthetic (type) _____

– Abnormalities ☐ Absent ☐ Present: If present, circle/describe all that apply:
– Vegetations _____
– Thickening _____
– Calcification _____
– Perforation _____
– Commissural fusion _____
– Other: _____

Left semilunar valve

– Number of cusps ☐ 3 (normal) ☐ 2 (bicuspid) ☐ Other: _____ ☐ Prosthetic (type) _____

– Abnormalities ☐ Absent ☐ Present: If present, circle/describe all that apply:
– Vegetations _____
– Thickening _____
– Calcification _____
– Perforation _____
– Commissural fusion _____
– Other: _____

Great vessels

– Pulmonary artery ☐ Normal ☐ Dilated ☐ Hypoplastic
– Discontinuous branch pulmonary arteries ☐ Absent ☐ Present
– Supravalvar pulmonary stenosis ☐ Absent ☐ Present: ☐ Mild ☐ Moderate ☐ Severe
– Thromboemboli ☐ Absent ☐ Present: _____
– Aorta³¹ ☐ Leftward arch (normal) ☐ Rightward arch
– Other arch anomaly (e.g., vascular ring) ☐ Absent ☐ Present: _____
– Root dilatation ☐ Absent ☐ Present: _____ cm (circumference)
– Dissection ☐ Absent ☐ Present: (type) _____ Ruptured? ☐ Yes ☐ No
– Coarctation/Interruption ☐ Absent ☐ Present
– Supravalvar aortic stenosis ☐ Absent ☐ Present: ☐ Mild ☐ Moderate ☐ Severe
– Ductus arteriosus ☐ Ligamentous (ligamentum arteriosum) ☐ Present, closed
☐ Probe patent ☐ Visibly patent: _____ mm (diameter)

Coronary arteries

– Ostia ☐ Normal³² ☐ Abnormal: (e.g., stenosis) _____
– Distribution ☐ Normal, right dominant ☐ Normal, left dominant³³ ☐ Abnormal
If abnormal ☐ Single ☐ Left anterior descending from right ☐ Circumflex from right
☐ Other: _____
– Aneurysm ☐ Absent ☐ Present: _____
– Dissection ☐ Absent ☐ Present: _____
– Narrowing ☐ Absent ☐ Present: _____ ☐ Atherosclerotic ☐ Non-atherosclerotic

²⁷Measurement should be taken at the level of the tips of the left ventricular papillary muscles.

²⁸Description should include location, size, and any intervention. If malalignment is present (e.g., as in tetralogy of Fallot), describe extent and direction – anterior or posterior.

²⁹Describe morphology/pathology in “Left semilunar valve” section.

³⁰D-malposition is commonly referred to as “complete transposition” (i.e., aorta is anterior and rightward of the pulmonary artery).

³¹The aorta is the vessel that gives rise to the coronary arteries.

³²“Normal” includes origin of the conus artery adjacent to right coronary ostium (normal variant).

³³The right coronary artery may be small in left-dominant hearts. Describe in further detail in “Other” section if absent/hypoplastic or if downstream sequelae exist (e.g., myocardial infarction).

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If atherosclerosis is present, fill out the following table:

Coronary Artery	Greatest % obstruction	Proximal √	Mid √	Distal √	Thrombus +/-	Calcification +/-
Left main						
Left anterior descending						
Diagonal						
Left circumflex						
Obtuse marginal						
Right						
Posterior descending						
Other						

Hypertrophic cardiomyopathy ☐ Absent ☐ Present

Dilated cardiomyopathy ☐ Absent ☐ Present

Left ventricular noncompaction ☐ Absent ☐ Present

Restrictive cardiomyopathy ☐ Absent ☐ Present

Congenital heart disease^{34,35} ☐ Absent ☐ Present: (type) _____

Valve disease

– Mitral valve prolapse ☐ Absent ☐ Present

– Valve stenosis ☐ Absent ☐ Present: (location, severity) _____

Cardiovascular interventions present at autopsy³⁶ ☐ Absent ☐ Present

– Pacemaker: (make, model, type) _____

Interrogated? ☐ Yes ☐ No Results: _____

– Implantable cardioverter defibrillator: (make, model) _____

Interrogated? ☐ Yes ☐ No Results: _____

– Implanted loop recorder: (make, model) _____

Interrogated? ☐ Yes ☐ No Results: _____

– Ventricular assist device: (type, location) _____

– Evidence of congenital heart surgery: (type, location) _____

– Stents/coils/plugs/occluder devices: (location) _____

– Other: _____

³⁴Probe patent foramen ovale is considered a normal variant and should not be included under congenital heart disease.

³⁵Surgical status will be recorded under evidence of cardiovascular interventions

³⁶With the exception of valve prostheses, which should be described in the valve sections above.

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Heart – Microscopic Examination (Describe findings on page 17)

The extent of microscopic examination is guided by the available history and the gross findings.

For a grossly normal heart, at a minimum:

- 2 sections of left ventricle that include the anterolateral and posteromedial papillary muscles
- 1 section of basilar ventricular septum
- 1 section of right ventricle
- An additional 4-6 sections of myocardium taken from a variety of locations in the ventricles and septum (to look for myocarditis, which can be patchy; if there is recent history of viral illness, it is advisable to take more)

Myocardium:

- Take sections of any areas of discoloration, softening, or mass.
- Taking sections of old myocardial infarction scars is usually uninformative, but areas of myocardium with randomly dispersed interstitial scars should be sampled.
- In cases of suspected hypertrophic cardiomyopathy, the ventricular septum should be carefully sampled to look for myocyte disarray.
- In cases of suspected arrhythmogenic right ventricular cardiomyopathy, multiple sections of the anterior and posterior walls of the right ventricle should be taken.
- Make note of:
 - Hypertrophy
 - Myocyte disarray
 - Necrosis (coagulative vs. contraction-band; focal vs. geographic; specific distribution)

- Fibrosis (replacement vs. interstitial; specific distribution)
- Inflammation (prominent cell type(s); presence/absence of myocyte necrosis)
- Infiltrate (e.g., fat, amyloid)
- Epicardial surface (e.g., presence/absence of inflammation and exudate)
- Epicardial arteries (atherosclerosis)
- Intramyocardial arteries (thrombi, fibromuscular dysplasia)

Coronary arteries:

- Take sections of the greatest area of obstruction of each artery.
- Take sections of any other grossly visible lesion (e.g., aneurysm, dissection); consider including elastic stain.

Valves:

- Take sections of any vegetations (consider including Brown & Brenn tissue gram stain).
- Take a section of a mitral leaflet if it appears to have myxoid degeneration (include an Alcian Blue (AB)-Periodic acid-Schiff (PAS) stain).

Conduction system:

- Examination of the conduction system³⁷ should be done in all cases where:
 - There is documented history of heart block, OR
 - The decedent is an infant/small child and there is a known history of maternal lupus, OR
 - Myxoid valvular disease is present.
- If number of histology blocks is not a financial consideration, doing microscopic examination of the conduction system should be considered in any apparent sudden cardiac death case.

Brain – Gross Examination (Describe findings on page 17)

- Photographs should be taken with the brain in place and cranial vault removed. This is helpful for evaluation of brain swelling. All photographs should be made with a ruler.

-Photographs: ☐ Vertex view ☐ Right view ☐ Left view ☐ Base View

- Photographs
 - Epidural surface of dura mater
 - Subdural surface of dura mater
 - Dorsal brain
 - Ventral brain
 - Right side of brain
 - Left side of brain
 - Evidence of surgical intervention

Evidence of surgical intervention ☐ Absent ☐ Present: If present, circle/describe all that apply:

- Craniotomy: _____
- Craniectomy: _____
- Hardware in skull: _____
- Dural grafts: _____
- Tubes, drains: _____

Dural sinus thrombosis ☐ Absent ☐ Present: ☐ Sagittal ☐ Transverse

Subdural hemorrhage ☐ Absent ☐ Present: ☐ Left ☐ Right ☐ Bilateral

- If present: Amount _____ ml

Color _____

Appearance: ☐ Clotted ☐ Liquid ☐ Shiny surface

³⁷A stepwise description of the technique can be found in Gulino SP. Examination of the cardiac conduction system: forensic application in cases of sudden cardiac death. Am J Forensic Med Pathol 2003;24(3):227-38.

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Brain – Gross Examination (continued)

Purulent material in subdural space ☐ Absent ☐ Present

– If present, bacterial culture obtained ☐ Yes, results: _____ ☐ No

Subarachnoid hemorrhage ☐ Absent ☐ Present

– If present Pattern: ☐ Diffuse ☐ Scattered ☐ Focal, location: _____

Severity: ☐ Mild ☐ Moderate ☐ Severe _____

Leptomeninges

– Clear ☐ Yes ☐ No:

If no:

– Purulent material ☐ Absent ☐ Present

If present, bacterial culture obtained ☐ Yes, results: _____ ☐ No

– Clouding ☐ Absent ☐ Present

If present, bacterial and viral culture obtained ☐ Yes, results: _____ ☐ No

– Congestion ☐ Absent ☐ Present

Brain removed³⁸ ☐ No ☐ Yes: ☐ By pathologist ☐ By pathology resident ☐ By technician

Brain weight (unfixed)³⁹ _____ g

• *Fix brain in 10 – 20% buffered formalin for 2 weeks or longer.*^{40,41}

• *Suspend brain so that is not deformed by container. This can be done by suspension with a thread under the basilar artery or by using concentrated formalin until the brain floats*

• *Request antemortem imaging reports if available for review prior to cutting.*

Brain weight (fixed): _____ g

Photographs: -Epidural surface of dura mater -Subdural surface of dura mater -Dorsal brain -Ventral brain
-Right side of brain -Left side of brain -Evidence of surgical intervention

Intradural hemorrhage ☐ Absent ☐ Present

– If present Location: _____

Severity: ☐ Mild ☐ Moderate ☐ Severe

Subdural neomembrane ☐ Absent ☐ Present

– If present Location: ☐ Right cerebral ☐ Left cerebral ☐ Superior tentorium ☐ Inferior tentorium ☐ Posterior fossa

Color: _____

Gyral pattern ☐ Normal ☐ Aberrant: _____

– Polymicrogyria ☐ Absent ☐ Present, location(s): _____

Circle of Willis:

– Distribution ☐ Normal ☐ Abnormal: _____

– Obstruction ☐ Absent ☐ Present

– Size ☐ Normal ☐ Small ☐ Large Vessel(s): _____

– Aneurysm ☐ Absent ☐ Present

If present: Size _____ mm

Location: _____

Cranial nerves All present: ☐ Yes ☐ No: _____

Symmetric: ☐ Yes ☐ No: _____

Cingulate herniation ☐ Absent ☐ Present: ☐ Right ☐ Left

Uncal herniation ☐ Absent ☐ Present: ☐ Right ☐ Left ☐ Bilateral

Tonsillar herniation ☐ Absent ☐ Present: ☐ Right ☐ Left ☐ Bilateral ☐ Chronic⁴² ☐ Acute

³⁸Removal by forensic pathologist is recommended. This decreases the chances of artifacts, such as tearing of cranial nerves.

³⁹Skip this step if the brain is very fragile and the brain can be fixed.

⁴⁰Except in jurisdictions in which this is not allowed.

⁴¹In some jurisdictions the family must be notified if the brain is retained for fixation.

⁴²As in a malformation such as Arnold Chiari

SUDDEN DEATH IN THE YOUNG AUTOPSY GUIDANCE

Brain – Gross Examination (continued)

Pontomedullary tear	<input type="checkbox"/> Absent	<input type="checkbox"/> Present: _____	Depth _____ mm
Cerebral hemispheres	<input type="checkbox"/> Symmetric	<input type="checkbox"/> Asymmetric:	<input type="checkbox"/> Right larger <input type="checkbox"/> Left larger
Cerebellar hemispheres	<input type="checkbox"/> Symmetric	<input type="checkbox"/> Asymmetric:	<input type="checkbox"/> Right larger <input type="checkbox"/> Left larger
Cerebellar folial sclerosis	<input type="checkbox"/> Absent	<input type="checkbox"/> Present, location:	_____
Areas of softening	<input type="checkbox"/> Absent	<input type="checkbox"/> Present, location:	_____
Areas of firmness	<input type="checkbox"/> Absent	<input type="checkbox"/> Present, location:	_____
Surgical drains or other materials	<input type="checkbox"/> Absent	<input type="checkbox"/> Present	
– If present: Location:		_____ Type of material: _____	
Drains patent	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Shunts patent	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

- *Separate brainstem/cerebellum by horizontal cut through the midbrain.*⁴³

Aqueduct: ☐ Normal ☐ Obstructed ☐ Dilated

- *Cut the cerebrum in the coronal plane at 1.5 – 2.0 cm intervals.*
- *Separate the brainstem from the cerebellum by cutting the cerebellar peduncles.*
- *Divide the cerebellum in midline; slice each hemisphere with sagittal cuts at 0.5 cm intervals.*
- *Section the brainstem at 0.3 cm intervals.*
- *Photograph the cut brain sections.*⁴⁴

Brain	<input type="checkbox"/> Symmetric	<input type="checkbox"/> Asymmetric:	_____
Lateral ventricles	<input type="checkbox"/> Symmetric	<input type="checkbox"/> Asymmetric:	<input type="checkbox"/> Right larger <input type="checkbox"/> Left larger
	<input type="checkbox"/> Not Dilated	<input type="checkbox"/> Dilated:	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe
Mass	<input type="checkbox"/> Absent	<input type="checkbox"/> Present:	_____
Third ventricle	<input type="checkbox"/> Normal	<input type="checkbox"/> Dilated	<input type="checkbox"/> Obstructed
Fourth ventricle	<input type="checkbox"/> Normal	<input type="checkbox"/> Dilated	<input type="checkbox"/> Obstructed
Cortical ribbon			
– Size	<input type="checkbox"/> Normal	<input type="checkbox"/> Narrow:	_____ <input type="checkbox"/> Diffuse <input type="checkbox"/> Focal, location(s): _____
– Discoloration	<input type="checkbox"/> Absent	<input type="checkbox"/> Present:	_____ <input type="checkbox"/> Diffuse <input type="checkbox"/> Focal, location(s): _____
White matter			
– Distribution	<input type="checkbox"/> Symmetric	<input type="checkbox"/> Asymmetric:	_____
– Discoloration	<input type="checkbox"/> Absent	<input type="checkbox"/> Present:	_____ <input type="checkbox"/> Diffuse <input type="checkbox"/> Focal, location(s): _____
Myelination	<input type="checkbox"/> Normal for age	<input type="checkbox"/> Abnormal for age:	_____
Hippocampi	<input type="checkbox"/> Symmetric	<input type="checkbox"/> Asymmetric:	<input type="checkbox"/> Right smaller <input type="checkbox"/> Left smaller
Deep nuclei			
– Distribution:	<input type="checkbox"/> Symmetric	<input type="checkbox"/> Asymmetric:	_____
– Discoloration:	<input type="checkbox"/> Absent	<input type="checkbox"/> Present:	_____ <input type="checkbox"/> Diffuse <input type="checkbox"/> Focal, location(s): _____
Pituitary			
– Size	<input type="checkbox"/> Normal <input type="checkbox"/> Small <input type="checkbox"/> Large		
– Necrosis	<input type="checkbox"/> Absent	<input type="checkbox"/> Present:	_____
– Mass	<input type="checkbox"/> Absent	<input type="checkbox"/> Present:	_____
– Areas of softness	<input type="checkbox"/> Absent <input type="checkbox"/> Present		
	If present: Location(s):	_____ Size: _____ mm	

⁴³Other techniques may be useful (e.g., sagittal sectioning of brainstem if pontomedullary tear suspected; sagittal sectioning of brainstem with cerebellum if Arnold Chiari suspected)

⁴⁴Photographs of cut brain can be done in 2 to 6 photos with multiple sections in each. If abnormalities are found, photograph the involved brain section(s) with possible close-up views of the abnormalities.

SUDDEN DEATH IN THE YOUNG AUTOPSY GUIDANCE

Brain – Gross Examination (continued)

- Areas of firmness ☐ Absent ☐ Present
If present: Location(s): _____ Size: _____ mm
- Areas of discoloration ☐ Absent ☐ Present
If present: Location(s): _____ Size: _____ mm
Color: _____
- Hemorrhage ☐ Absent ☐ Present
If present: Location(s): _____ Size: _____ mm
- Encephomalacia ☐ Absent ☐ Present
If present: Location(s): _____ Size: _____ mm
- Stroke ☐ Absent ☐ Present, location: _____
- Heterotopia ☐ Absent ☐ Present, location: _____
- Arterio-venous malformation ☐ Absent ☐ Present, location: _____
- Compression of cerebral hemisphere ☐ Absent ☐ Present
- Anoxic ischemic encephalopathy ☐ Absent ☐ Present
- Other congenital anomalies of the brain ☐ Absent ☐ Present, describe: _____

Brain – Microscopic Examination (Describe findings on page 17)

- Take sections of any abnormal areas⁴⁵
- Also take sections of:
 - Dura⁴⁶
 - Frontal cortex including subcortical white matter
 - Parietal cortex including subcortical white matter
 - Temporal cortex including subcortical white matter and ependymal surface
 - Right hippocampus at level of lateral geniculate nucleus
 - Left hippocampus at level of lateral geniculate nucleus
 - Amygdala
 - Hypothalamus
 - Cerebellum including dentate nucleus and folia
 - Midbrain
 - Pons
 - Medulla
- Keep sectioned brain in formalin until histologic examination is complete.
- Retain brainstem and hippocampi.⁴⁷

Gastrointestinal Tract – Gross Examination

External Examination

- Abdominal distention ☐ Absent ☐ Present
-If present: ☐ Postmortem gas ☐ Asymmetry ☐ Fluid wave
- Scar(s) from previous abdominal surgery ☐ Absent ☐ Present: _____
- External feeding tube ☐ Absent ☐ Present: _____

Internal Examination

- Photography: optional *In situ* *On cutting board*
- Testing: sampling for viral and bacterial cultures (as indicated)

Peritoneal Cavity

- Evidence of peritonitis ☐ Absent ☐ Present: _____
- Ruptured abdominal organ ☐ Absent ☐ Present: _____
- Fluid accumulation ☐ Absent ☐ Present: _____
- Injury from resuscitation ☐ Absent ☐ Present: _____

⁴⁵Sections should include borders between normal and abnormal areas.

⁴⁶If subdural hemorrhage/neomembrane present, include interface with the normal dura.

⁴⁷If jurisdiction allows.

SUDDEN DEATH IN THE YOUNG AUTOPSY GUIDANCE

Gastrointestinal Tract – Gross Examination (continued)

- Adhesions ☐ Absent ☐ Present: _____
- Previous surgery ☐ Absent ☐ Present: _____
- Hernia ☐ Absent ☐ Present: _____
- If present: Incarceration: ☐ Absent ☐ Present: _____
- Volvulus ☐ Absent ☐ Present: _____
- Intussusception ☐ Absent ☐ Present: _____
- Appendicitis ☐ Absent ☐ Present: _____
- Foreign object in the peritoneum ☐ Absent ☐ Present: _____

- *Examine the tongue. During examination look for tongue bites if the child has teeth; examine the area of the foramen cecum for a visible or microscopic trace of the origin of the thyroid gland.*

Liver weight within normal range for age ☐ Yes ☐ No: ☐ Larger ☐ Smaller

If the liver is enlarged, does it appear to be a sequela of right heart failure (not a primary liver problem)? ☐ Yes ☐ No

- *Look at the epiglottis (may fall under respiratory/trachea).*
- *Open the esophagus, stomach, and duodenum, and consider opening the jejunum and ileum (strongly recommended).*
- *Open the large bowel.*
- *Use dissection or the squeeze test to evaluate whether the biliary tree passes bile.*
- *Open the gallbladder; optional, obtain bile for later evaluation.*
- *Section the liver and the pancreas.*
- *The pancreas may be sectioned with the duodenum and ampulla (preferred), or after separation from the duodenum.*

Pancreatitis ☐ Absent ☐ Present: _____

Adhesions/sequelae of surgery

☐ Absent ☐ Present: _____

Bleeding ☐ Absent ☐ Present: _____

Thrombosis ☐ Absent ☐ Present, vessel: _____

Obstruction ☐ Absent ☐ Present: _____

Dilatation ☐ Absent ☐ Present: _____

Stenosis ☐ Absent ☐ Present: _____

Fistulas ☐ Absent ☐ Present: _____

Foreign objects

☐ Absent ☐ Present: _____

Masses - wall, including reduplications

☐ Absent ☐ Present: _____

Masses in the lumen

☐ Absent ☐ Present: _____

Intussusception

☐ Absent ☐ Present: _____

Volvulus ☐ Absent ☐ Present: _____

Toxic megacolon

☐ Absent ☐ Present: _____

Prolapse (rectal or other)

☐ Absent ☐ Present: _____

Reflux ☐ Absent ☐ Present: _____

Inflammation ☐ Absent ☐ Present: _____

Diarrhea ☐ Absent ☐ Present: _____

Constipation ☐ Absent ☐ Present: _____

Sequelae of necrotizing enterocolitis

☐ Absent ☐ Present: _____

Sequelae of G.I. diseases/infections⁴⁸

☐ Absent ☐ Present: _____

Congenital abnormalities

☐ Absent ☐ Present: _____

⁴⁸In neonates, systemic Herpes infection may include hepatitis.

SUDDEN DEATH IN THE YOUNG AUTOPSY GUIDANCE

Gastrointestinal Tract – Microscopic Examination (Describe findings on page 17)

- Take sections of any abnormal areas.
- Also take sections of:
 - Tongue at foramen cecum (optional)
 - Epiglottis (optional)
 - Proximal esophagus (optional)
 - Gastroesophageal junction, for reflux (required in infants; optional in children/young adults)
 - Gastric wall (optional)
 - Pyloroduodenal junction (recommended in infants; optional in children and young adults)
 - Proximal duodenum (if evaluating for villous atrophy, some immunodeficiency syndromes, or parasites; optional otherwise)
 - Ampulla of Vater with adjacent duodenum and head of the pancreas (optional)
 - Tail of the pancreas (optional)
 - Liver
 - Gallbladder, biliary tree (optional)
 - Jejunal and ileal sections (if evaluating for villous atrophy, enteritis, or parasites; optional otherwise)
 - Ileocecal junction (recommended in infants; optional in children and young adults)
 - Appendix tip or base (optional)
 - Ascending or transverse colon (optional)
 - Descending or rectosigmoid colon (recommended in infants and children; optional in children and young adults)
 - Anorectum (optional)

Infectious Diseases

Neurologic

- | | | |
|----------------|---------------------------------|----------------------------------|
| - Encephalitis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Meningitis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |

Respiratory

- | | | |
|----------------------------|---------------------------------|----------------------------------|
| - Pharyngitis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Epiglottitis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Bronchitis/bronchiolitis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Pneumonia | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |

Cardiac

- | | | |
|----------------|---------------------------------|----------------------------------|
| - Myocarditis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Endocarditis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |

Gastrointestinal

- | | | |
|-----------------|---------------------------------|----------------------------------|
| - Enterocolitis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
|-----------------|---------------------------------|----------------------------------|

Other

- | | | |
|---|---------------------------------|----------------------------------|
| - Diffuse rash | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Soft tissue lesion | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Lymphadenitis | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Sepsis syndrome (e.g., disseminated intravascular coagulopathy) | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Urinary tract infection | <input type="checkbox"/> Absent | <input type="checkbox"/> Present |
| - Other: | | |

Specimens

The following should not be construed as requiring every sample for every examination, but should guide the autopsy physician's selection of specimens recovered based upon antemortem signs and symptoms and postmortem anatomic findings.

- ☐ Nasopharyngeal swab for viral culture
- ☐ Cerebrospinal fluid
- Blood cultures ☐ Aerobic ☐ Anaerobic
- Trachea ☐ Culturette ☐ Fresh tissue (obtained in a sterile fashion)
- Bronchus ☐ Culturette ☐ Fresh tissue (obtained in a sterile fashion)
- Lung culturette(s)
 - ☐ Right upper lobe ☐ Right middle lobe ☐ Right lower lobe
 - ☐ Left upper lobe ☐ Left lower lobe
- Sterilely obtained fresh lung tissue
 - ☐ Right upper lobe ☐ Right middle lobe ☐ Right lower lobe
 - ☐ Left upper lobe ☐ Left lower lobe
- ☐ Stool sample

Were additional specialists consulted on this autopsy (e.g., cardiac pathologist, neuropathologist)? ☐ Yes ☐ No

If yes, specify: _____

Gross Examination of Organs Summary Table

Organ	In situ exam	Gross weight of organ	Fixed or fresh (check)	Gross inspection (check box if normal; if not, describe abnormalities)	Sections retained? ⁴⁹
Brain (including leptomeninges)				<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Neck structures ⁵⁰		Thyroid gland ⁵¹ Thymus	<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Body cavities ⁵²			<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Heart			<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Kidneys			<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Liver			<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Lungs			<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Pancreas			<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Spleen			<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No
Gastrointestinal tract			<input type="checkbox"/> Fresh <input type="checkbox"/> Fixed	<input type="checkbox"/> Normal	<input type="checkbox"/> Yes <input type="checkbox"/> No

⁴⁹Small tissue samples in formalin.

⁵⁰Neck structures include: epiglottis, aryepiglottic folds, arytenoid and thyroid cartilage to include the vocal cords, cricothyroid membrane, the cricoid cartilage and the tracheal rings, thyroid gland, strap muscles, and the vessels and nerves including those within the carotid sheath and tongue. Under 1 year old include the subglottic musculature.

⁵¹In infants the thyroid may be too small to weigh.

⁵²Body cavities include the pleural, peritoneal and pericardial cavities and pelvis.

Tissue Sampling and Histology

Sampled Tissue	Number of Sections	Describe Abnormalities
Airways		
Brain (including leptomeninges)		
Heart		
Kidneys		
Liver		
Lungs		
Pancreas		
Spleen		
Thymus		
Bone or costochondral tissue		Location: Abnormalities:
Endocrine organs ⁵³		
Gastrointestinal tract		

⁵³Endocrine organs include: adrenal glands, pituitary gland, and the thyroid gland. The testes/ovaries can also be included.

Ancillary Testing

Testing	Describe Testing Performed	Results
	Lab name and type of testing (toxicology panel or genetic testing for Long QT, etc.)	
Microbiology/cultures for infectious disease		<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal If abnormal, describe:
Postmortem metabolic screen		<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal If abnormal, describe:
Toxicology		<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal If abnormal, describe:
Vitreous testing		<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal If abnormal, describe:
Genetic testing		<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal If abnormal, describe:
Other, specify:		<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal If abnormal, describe:

Final Pathologic Diagnosis

Was the family referred to a tertiary care center with subspecialty expertise relevant to the cause of death (e.g., cardiology, neurology) for screening of at-risk relatives and genetic counseling?

☐ Yes ☐ No ☐ N/A Where:



SUDDEN DEATH IN THE YOUNG
CASE REGISTRY

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